ABSTRACT

A method of debugging a system by analyzing transactions of a serial intra-system bus is particularly applicable to IIC or SPI intra-system busses. The method includes steps of capturing frames of the bus in a capture data file, extracting frames from the capture data file; checking frames for out-of-bounds addresses; and decoding an address of frames to identify a particular slave device type. Once a particular device type is identified, state changes indicated in frames are tracked with a computer model of the slave device; and state error information is recorded when frames indicate state changes that are not permissible state changes of the slave device.